

CLAIMS

- Sub 1
1. A tooth bleaching composition comprising titanium dioxide initiating photocatalytic action with light irradiation, a chemical compound generating hydrogen peroxide in an aqueous solution and a thickening agent.
 2. The tooth bleaching composition according to claim 1, wherein titanium dioxide is anatase type, rutile type or brookite type.
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3. The tooth bleaching composition according to claim 1 or 2, wherein the chemical compound generating hydrogen peroxide in a aqueous solution is selected from the group consisting of hydrogen peroxide, perborate, percarbonate, persulfate, perphosphate, calcium peroxide, magnesium peroxide and urea peroxide,
 4. The tooth bleaching composition according to claim 3, wherein the chemical compound generating hydrogen peroxide in an aqueous solution is hydrogen peroxide.
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5. The tooth bleaching composition according to any one of claims 1 to 4, wherein the thickening agent is selected from the group consisting of the layer-structure clay mineral, phosphoric acid and phosphate.
 6. The tooth bleaching composition according to any one of claims

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only
1 to 4, wherein the thickening agent is an inorganic clay mineral selected from the group consisted of saponite, montmorillonite, stevensite, hectorite, smectite, nacrite and sepiolite.

7. The tooth bleaching composition according to claim 5, wherein the phosphate is tetra-sodium pyrophosphate.

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8. The tooth bleaching composition according to any one of claims 1 to 7, wherein the content of the chemical compound generating hydrogen peroxide in an aqueous solution is 35 % by weight or less.

9. A method for bleaching a discolored tooth comprising applying the bleaching compound described in any one of claims 1 to 8 onto the surface of a discolored tooth and irradiating the applied surface area with light.

10. The method according to claim 9, wherein the wavelength of the irradiating light is 300 nm or longer.

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